

ENVIRONMENTAL QUALITY

CHAPTER 38

PUBLIC WATER AND SEWAGE SYSTEM REQUIREMENTS

Subchapter 3

Cross-Connections in Drinking Water Supplies

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Subchapter 3

Cross-Connections in Drinking Water Supplies

17.38.301 DEFINITIONS For the purposes of this subchapter, unless the context requires otherwise, the following definitions, in addition to those in 75-6-102, MCA, apply:

(1) "Approved backflow prevention assembly or device" means an assembly or device approved by the department.

(2) "Back pressure" means any increase of water pressure in the downstream piping system above the supply pressure at a point where backflow could occur.

(3) "Back siphonage" means a form of backflow caused by a reduction in supply pressure which causes a negative or sub-atmospheric pressure to exist in the water system.

(4) "Backflow" means the undesirable reversal of water flow or the reversal of water flow containing other liquids, gases or other substances from a connected source that flows into the distribution pipes of the public water supply system.

(5) "Backflow prevention assembly" means an apparatus that consists of a backflow prevention device, two shutoff valves, and appropriate test ports.

(6) "Backflow prevention device" means an apparatus designed to prevent backflow.

(7) "Certified backflow prevention assembly tester" means a person who holds a current certificate issued by a certification program of any state authorizing the person to test backflow prevention assemblies or who holds a current certificate from the American Society of Sanitary Engineers or the American Backflow Prevention Association.

(8) "Cross-connection" is defined in 75-6-102, MCA.

(9) "Degree of hazard" means the level of risk created by either a pollutant (non-health hazard) or a contaminant (health hazard), as derived from an assessment of the materials that may come in contact with the distribution system through a cross-connection.

(10) "Health hazard" means a condition that causes or creates a potential for water contamination that may cause disease or have other physical or toxic effects on humans.

(11) "Non-health hazard" means a condition that causes or creates a potential for water quality degradation but does not constitute a health hazard. (History: 75-6-103, MCA; IMP, 75-6-103, MCA; NEW, 1998 MAR p. 958, Eff. 4/17/98; AMD, 2012 MAR p. 1141, Eff. 6/8/12.)

17.38.302 INCORPORATION BY REFERENCE (1) The board adopts and incorporates by reference the "Manual of Cross-Connection Control" (10th edition), published by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California (October 2009). This publication sets forth standards for cross-connections to public water supply systems. Copies of this publication may be obtained by contacting the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California, Kaperielian Hall 200, Los Angeles, CA 90089-2531 or at <http://www.usc.edu/dept/fccchr/>. (History: 75-6-103, MCA; IMP, 75-6-103, MCA; NEW, 1998 MAR p. 958, Eff. 4/17/98; AMD, 2003 MAR p. 1279, Eff. 6/27/03; AMD, 2012 MAR p. 1141, Eff. 6/8/12.)

Rules 17.38.303 and 17.38.304 reserved

17.38.305 CROSS-CONNECTIONS: REGULATORY REQUIREMENTS

(1) A cross-connection on a public water supply system must be eliminated by the disconnection of the cross-connection whenever reasonably practicable. Whenever elimination of a cross-connection is not reasonably practicable and the cross-connection creates a health or non-health hazard, the hazard must be eliminated by the insertion into the piping of an approved backflow prevention assembly or device in accordance with (2).

(2) For the cross-connections identified below, the following types of approved backflow prevention assemblies or devices must be used:

(a) A health hazard created by a cross-connection that may be subject to back pressure must be eliminated by an approved reduced pressure principle backflow prevention assembly (RP) or an air-gap.

(b) A health hazard created by a cross-connection that may be subject to back siphonage, but not subject to back pressure, must be eliminated by an approved air-gap, pressure vacuum breaker assembly (PVB), spill-resistant pressure vacuum breaker assembly (SVB), atmospheric vacuum breaker (AVB), or a reduced pressure principle backflow prevention assembly (RP).

(c) A non-health hazard created by a cross-connection that may be subject to back pressure and back siphonage must be eliminated, at a minimum, by an approved double check valve assembly (DC). This cross-connection condition may also be eliminated by an air-gap or by an approved reduced pressure principle backflow prevention assembly (RP).

(d) A non-health hazard created by a cross-connection that may be subject to back siphonage, but is not subject to back pressure, must be eliminated, at a minimum, by an approved double check valve assembly (DC), pressure vacuum breaker assembly (PVB), spill-resistant pressure vacuum breaker assembly (SVB), or an atmospheric vacuum breaker (AVB). This cross-connection condition may also be eliminated by an air-gap or by an approved reduced pressure principle backflow prevention assembly (RP).

(3) Backflow prevention assemblies and devices must be approved by the department.

(4) A backflow prevention assembly or device must be installed and maintained, at a minimum, in accordance with the manufacturer's specifications.

(5) This rule applies to piping between water systems outside of any building and to piping within any building, including cross-connections in plumbing systems.

(6) The department may not approve a plan for the construction of a public water supply system containing provisions for cross-connection unless provisions for the protection of the public water supply are demonstrated in the plan. (History: 75-6-103, MCA; IMP, 75-6-103, MCA; NEW, 1998 MAR p. 958, Eff. 4/17/98; AMD, 2012 MAR p. 1141, Eff. 6/8/12.)

Rules 17.38.306 through 17.38.309 reserved

17.38.310 VOLUNTARY CROSS-CONNECTION CONTROL PROGRAMS: APPLICATION REQUIREMENTS (1) To obtain approval of a voluntary cross-connection control program, an owner or operator of a public water supply system shall file an application with the department.

(2) The application must be accompanied by a copy of the local ordinances or plan of operations that describes the methods for implementing the cross-connection control program. The local ordinances or plan of operations must include the following:

(a) a statement defining the responsibilities of the public water supplier and the responsibilities of the consumer regarding implementation of the program;

(b) a requirement for a survey to be conducted by the owner or operator of a public water supply system for the purpose of identifying locations where cross-connections are likely to occur and evaluating the degree of hazard at each location;

(c) a requirement to eliminate cross-connections and hazards in compliance with ARM 17.38.305 on a priority basis beginning with those identified as having the highest degree of hazard. A health hazard must be assigned a higher degree of risk than all non-health hazards;

(d) a description of the procedures and criteria that the public water supplier must or will use to evaluate the degree of hazard represented by a cross-connection. The procedures and criteria must, at a minimum, be consistent with the procedures and criteria specified in the "Manual of Cross-Connection Control", incorporated by reference in ARM 17.38.302;

(e) the method for identifying the appropriate backflow prevention assembly or device for a specific degree of hazard. The methodology must be in accordance with the "Manual of Cross-Connection Control" incorporated by reference in ARM 17.38.302, or as described in ARM 17.38.305(2);

(f) a requirement for the installation of backflow prevention assemblies or devices where cross-connections identified in the survey cannot be practically eliminated;

(g) a provision for maintaining permanent records of the locations and types of backflow prevention assemblies or devices installed in the public water supply system and a provision requiring records regarding the inspection and testing of these backflow prevention assemblies or devices; and

(h) a written procedure that will be used to inspect and test a backflow prevention assembly or device. The procedures must provide that a certified backflow prevention assembly tester, as defined in this subchapter, will be used to conduct the inspection and testing. (History: 75-6-103, MCA; IMP, 75-6-103, MCA; NEW, 1998 MAR p. 1277, Eff. 4/17/98; AMD, 2012 MAR p. 1141, Eff. 6/8/12.)

17.38.311 VOLUNTARY CROSS-CONNECTION CONTROL PROGRAMS:
PROCEDURE FOR REVIEW OF APPLICATIONS

(1) Upon receipt of an application for a voluntary cross-connection control program, the department shall review the application within 60 days to determine if the application is complete. If the application is incomplete, the department shall send written notification to the public water supplier identifying the deficiencies and requesting additional information. Within 60 days of receipt of the requested information, the department shall review the application for compliance with this subchapter.

(2) After reviewing a complete application for compliance with this subchapter, the department shall approve the application if it meets the requirements of ARM 17.38.312 and disapprove the application if it does not meet those requirements. The department shall notify the public water supplier in writing that the voluntary program is or is not approved by the department. If a voluntary program is not approved, the department shall specify the reasons for its denial of the application.

(3) If a public water supplier wishes to modify a department-approved voluntary program for cross-connection control, the modification must be submitted to the department for its review and approval according to the requirements of this subchapter. (History: 75-6-103, MCA; IMP, 75-6-103, MCA; NEW, 1998 MAR p. 958, Eff. 4/17/98.)

17.38.312 VOLUNTARY CROSS-CONNECTION CONTROL PROGRAMS:
STANDARDS AND REQUIREMENTS FOR CROSS-CONNECTION CONTROL

(1) The department shall approve a voluntary program for cross-connection control if:

(a) the applicant has submitted an application that meets the requirements of ARM 17.38.310;

(b) the program provides for elimination of cross-connections, health hazards, and non-health hazards, and for installation and maintenance of backflow prevention assemblies or devices in accordance with ARM 17.38.305;

(c) the program provides that backflow prevention assemblies or devices must be inspected and tested, at least annually, in accordance with the "Manual of Cross-Connection Control", incorporated by reference in ARM 17.38.302; and

(d) the program provides that inspection and testing of backflow prevention assemblies or devices must be performed by a certified backflow prevention assembly tester.

(2) A cross-connection is exempt from the standards in this rule if the following conditions are met:

(a) the cross-connection is with a public water supply system that has been approved by the department;

(b) the owner or operator of the public water supply that is or will be connected to the system with the approved voluntary cross-connection control program:

(i) sends a written request for an exemption to the public water supplier with the approved voluntary program; and

(ii) submits a sanitary survey conducted within the three years preceding the request for an exemption that:

(A) indicates that there are no cross-connections that violate the requirements of ARM 17.38.305(1) and (2) within the public water supply system that is or will be connected; and

(B) has been conducted by the department or a person who has contracted with the department for the purpose of performing the sanitary survey; or

(C) has been determined by the department to be complete and reliable; and

(c) the public water supplier with the approved voluntary program determines that the public water supply that is or will be connected is acceptable as a source.

(History: 75-6-103, MCA; IMP, 75-6-103, MCA; NEW, 1998 MAR p. 958, Eff. 4/17/98; AMD, 2012 MAR p. 1141, Eff. 6/8/12.)

Subchapter 4 reserved

